

Remarks/Arguments

The Rejection of Claims 1, 12, and 13 Under 35 U.S.C. 103(a)

The Examiner rejected Claims 1, 12, and 13 as being unpatentable over US Patent No. 5,777,783 (Endou). Applicant respectfully traverses the rejection.

Claim 1

Endou does not suggest or motivate a dynamically tiltable modulator

Claim 1 recites: “wherein the modulator is mounted dynamically tiltable”. The Examiner asserts that Endou suggests that rotation of the modulator can be required in a modulation contrast image. The Examiner further states that it would be obvious to make Endou’s modulator dynamically tiltable “as suggested by Endou” to allow modulation contrast without the necessity to remove a modulator. The Examiner cites col. 13, lines 6-8 in support. Col. 13, lines 5-15 state: “In observing a modulation contrast image, unlike in observing a phase contrast image, it is necessary to rotate a pupil modulator to adjust the polarity of the contrast of the image. According to this embodiment, since the pupil modulation slider is employed, the modulator can be easily removed from the microscope main body and a whole unit of the modulator can be exchanged with another one. *Since the pupil modulator 26b is detachably provided in the main microscope housing 1, the size of the pupil modulating section is reduced and the operability is improved.*” (emphasis added).

Clearly, Endou has no teaching at all regarding tilting of a modulator. That is, Endou does not suggest making a modulator tiltable, at least because Endou only addresses rotation of a modulator. Rotation and tilting can be independently performed along respective orthogonal axes. Alternately stated, tilting is irrelevant to the rotation taught by Endou.

Endou teaches that a removable modulator is advantageous

In contrast to the Examiner’s assertion, Endou has no suggestion that removing a modulator is a problem to be solved. In fact, Endou praises the removability of his modulator and actually espouses the use of a removable modulator. For example, Endou directly states that the detachability of the modulator improves operability.

The Examiner has applied impermissible hindsight

The Examiner states that it would be obvious to make Endou's modulator dynamically tiltable "as suggested by Endou." As shown above, Endou does not teach, suggest, or motivate any type of tilting and even the rotation taught by Endou is not dynamic. Further, Endou does not teach that a detachable modulator is a problem to be solved. Therefore, any suggestion or motivation to tilt a modulator in Endou is derived from Applicant's disclosure. The Examiner must be pushed to a conclusion as to the patentability of Claim 1 by the teachings of the references themselves, or what is known in the art just before the invention was made. The Examiner cannot be drawn to a modification due to careful study of Applicant's disclosure.

Examiner's Response to Arguments

The Examiner stated: "The Examiner interprets tilting and rotation to be the same within the broadest reasonable interpretation of both terms." Applicant respectfully submits that there is no basis for this statement. The Merriam-Webster Dictionary defines 'rotate' as: "To turn about an axis or center." The same dictionary defines 'tilt' as: "To move or shift as to incline." These are completely different motions and Applicant submits that there is no reasonable interpretation that would encompass both terms. For example, the framework 'movement' might encompass both terms, but this framework is so broad as to be meaningless. Further, the specification clearly describes purpose and function for "tilting" far beyond mere movement. "This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) (discussed below); *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004) (Ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, are construed to mean exactly what they say. See, e.g., *Liebel-Flarsheim Co. v. Medrad Inc.*, 358 F.3d 898, 906, 69 USPQ2d 1801, 1807 (Fed. Cir. 2004)" Applicant has not defined "tilt" to be different than the plain meaning of the term, nor has Applicant defined "tilting" to be in any synonymous with "rotational."

"The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999)." "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application." *Phillips v. AWH Corp.*, ___ F.3d ___, 75 USPQ2d 1321 (Fed. Cir. 2005) (*en banc*).< *Sunrace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1302, 67 USPQ2d 1438, 1441 (Fed. Cir. 2003); *Brookhill-Wilk I, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 67 USPQ2d 1132, 1136 (Fed. Cir. 2003)("In the absence of an express intent to impart a novel meaning to the claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art."). It is the use of the words in the context of the written description and customarily by those skilled in the relevant art that accurately reflects both the "ordinary" and the "customary" meaning of the terms in the claims. *Ferguson Beauregard/Logic Controls v. Mega Systems*, 350 F.3d 1327, 1338, 69 USPQ2d 1001, 1009 (Fed. Cir. 2003) (Dictionary definitions were used to determine the ordinary and customary meaning of the words "normal" and "predetermine" to those skilled in the art. In construing claim terms, the general meanings gleaned from reference sources, such as dictionaries, must always be compared against the use of the terms in context, and the intrinsic record must always be consulted to identify which of the different possible dictionary meanings is most consistent with the use of the words by the inventor.); *ACTV, Inc. v. The Walt Disney Company*, 346 F.3d 1082, 1092, 68 USPQ2d 1516, 1524 (Fed. Cir. 2003)." It is quite clear that 'tilting' and 'rotation' have completely different meanings in the field of microscopes. For example, tilting and rotation of parts, such as a scanning mirror, in a microscope have radically different purposes and effects. Further it is clear that one skilled in the art would see completely different purposes and effects for tilting and rotation within the present application. Applicant's use of the term "tiltable" is wholly within the bounds of what is defined by reference sources and what is understood by those skilled in the art. In no way do these references or those skilled in the art equate the terms "rotational" and "tilting" in any context that is meaningful or relevant to the instant application or microscopes in

general.

The Examiner also stated: "Applicant appears to draw a distinction between tilting and rotation based upon the axes about which the modulator moves. The claim language does not include any limitations regarding the axes about which the modulator is tilted therefore this argument is not persuasive." Applicant is not arguing any limitation specifically reciting an axis. Applicant merely referred to the respective axes to illustrate the difference between tilting and rotation – it is not necessary to explicitly refer to axes when illustrating the difference between tilting and rotation, it is merely a convenient way to show the difference. Nor is it necessary for every illustration used in an argument to be recited in the claims.

Endou does not teach, suggest, or motivate all the limitations of Claim 1. Therefore, Claim 1 is patentable over Endou.

Claims 12 and 13

Claims 12 and 13 recite a dynamically tiltable modulator and the Examiner has applied the arguments for Claim 1 to Claims 12 and 13. Applicant has shown that Claim 1 is patentable over Endou, therefore, Claims 12 and 13 also are patentable over Endou.

Applicant courteously requests that the rejection be removed.

The Rejection of Claims 2, 8, 9, and 11 Under 35 U.S.C. 103(a)

The Examiner rejected Claims 2, 8, 9, and 11 as being unpatentable over US Patent No. 5,777,783 (Endou) in view of U.S. Patent No. 6,687,052 (Wilson et al.). Applicant respectfully traverses the rejection.

Claim 2, 8, and 9

Claims 2, 8, and 9 depend from Claim 1. Applicant has shown that Claim 1 is patentable over Endou. The Examiner asserts that Wilson teaches a greatest possible phase shift. However, even if true, the aforementioned teaching does not cure the defects of Endou with respect to a dynamically tiltable modulator. Therefore, Claim 1 is patentable over Endou and Wilson. Claims 2, 8, and 9, dependent from Claim 1, enjoy the same distinction with respect to the cited references.

Claim 11

Applicant has shown that Endou fails to teach, suggest, or motivate the dynamically tiltable modulator recited in Claim 11. The Examiner asserts that Wilson teaches a greatest possible phase shift. However, even if true, the aforementioned teaching does not cure the defects of Endou with respect to a dynamically tiltable modulator. Therefore, Claim 11 is patentable over Endou and Wilson.

Applicant courteously requests that the rejection be removed.

The Rejection of Claim 3 Under 35 U.S.C. 103(a)

The Examiner rejected Claim 3 as being unpatentable over US Patent No. 5,777,783 (Endou) in view of U.S. Patent No. 6,057,894 (Kobayashi). Applicant respectfully traverses the rejection.

Applicant has shown that Claim 1 is patentable over Endou. The Examiner asserts that Kobayashi teaches a glass layer. However, a glass layer does not cure the defects of Endou with respect to a dynamically tiltable modulator. Therefore, Claim 1 is patentable over Endou and Kobayashi. Claim 3, dependent from Claim 1, enjoys the same distinction with respect to the cited references.

Applicant courteously requests that the rejection be removed.

The Rejection of Claim 10 Under 35 U.S.C. 103(a)

The Examiner rejected Claim 10 as being unpatentable over US Patent No. 5,777,783 (Endou) in view of U.S. Patent No. 6,057,894 (Kobayashi) and further in view of U.S. Patent No. 6,687,052 (Wilson et al.). Applicant respectfully traverses the rejection.

Applicant has shown that Claim 1 is patentable over Endou and Kobayashi and Endou and Wilson. The combination of Kobayashi and Wilson does not cure the defects of Endou with respect to a dynamically tiltable modulator. Therefore, Claim 1 is patentable over Endou and Kobayashi and Wilson. Claim 10, dependent from Claim 1, enjoys the same distinction with respect to the cited references.

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Applicant courteously requests that the rejection be removed.

Conclusion

Applicant respectfully submits that all pending claims are now in condition for allowance, which action is courteously requested.

Respectfully submitted,

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